

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2005/000690

A. CLASSIFICATION OF SUBJECT MATTER  
Int.Cl<sup>7</sup> G01N1/00, C12M1/00, G01N1/28, 15/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> G01N1/00, C12M1/00, G01N1/28, 15/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2005  
Kokai Jitsuyo Shinan Koho 1971-2005 Toroku Jitsuyo Shinan Koho 1994-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
JICST FILE (JOIS), BIOSIS/WPI (DIALOG), PubMed

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
<u>Y</u> A	JP 9-145593 A (Nikon Corp.), 06 June, 1997 (06.06.97), Full text (Family: none)	<u>7-10</u> 1-6, 11, 12
<u>Y</u> A	JP 2000-74816 A (Nireco Corp.), 14 March, 2000 (14.03.00), Full text (Family: none)	<u>7-10</u> 1-6, 11, 12
<u>Y</u> A	JP 2003-284544 A (Aisin Seiki Co., Ltd.), 07 October, 2003 (07.10.03), Full text (Family: none)	<u>7-10</u> 1-6, 11, 12

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

## \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search  
14 April, 2005 (14.04.05)

Date of mailing of the international search report  
10 May, 2005 (10.05.05)

Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
<u>Y</u> A	JP 2003-274924 A (Jun KIKUCHI), 30 September, 2003 (30.09.03), Full text (Family: none)	<u>7-10</u> 1-6, 11, 12
<u>Y</u> A	Fu A.Y. et al., An integrated microfabricated cell sorter, Anal.Chem., 2002, Vol.74, pages 2451 to 2457	<u>7-10</u> 1-6, 11, 12
<u>Y</u> A	Fu A.Y. et al., A microfabricated fluorescence- activated cell sorter, Nat.Biotechnol., 1999, Vol.17, pages 1109 to 1111	<u>7-10</u> 1-6, 11, 12
<u>Y</u> A	JP 11-281564 A (Sysmex Corp.), 15 October, 1999 (15.10.99), Full text (Family: none)	<u>7-10</u> 1-6, 11, 12
<u>Y</u> A	JP 2001-305041 A (Sysmex Corp.), 31 October, 2001 (31.10.01), Full text & US 2001/0032495 A1	<u>7-10</u> 1-6, 11, 12

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**Box No. II** Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III** Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

The inventions in Claims 1-6 and a part of the inventions in Claims 11 and 12 (invention group A) relate to a microorganism separation device having a specimen liquid separation means for discharging detected microorganisms together with a specimen liquid from the terminal side of the first flow passage after the supply of the specimen liquid to the first flow passage is stopped based on the detected results on the microorganisms by a microorganism sensor.

The inventions in Claims 7-10 and a part of the inventions in Claims 11

(continued to extra sheet)

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

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Continuation of Box No. III of continuation of first sheet (2)

and 12 (invention group B) relate to a microorganism separation device in which a first flow passage is connected to a second flow passage through an orifice and the passing of the microorganisms through the orifice can be detected by a pair of electrodes installed in the first and second flow passages.

A common matter pertaining to the invention group A and the invention group B relates to a microorganism separation device having a specimen supply means, a first flow passage, and a sensor capable of detecting microorganisms. However, as described in JP 9-1455693 A, the common matter was publicly known before the priority date of this application. Accordingly, the common matter is not a special technical feature in the meaning of the second sentence of PCT Rule 13.2.